NEUROLOGICAL TABLE,

EXHIBITING A VIEW OF THE NERVES OF THE HEAD.

Dedicated to Students of Medicine.

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NO.	ORIGIN.	COURSE, RELATION, &c.	DISTRIBUTIONS AND CONNEXIONS.	FUNCTION.	COMPARATIVE ANATOMY.	SYNONYMA.
FIRST PAIR.	By three medullary tracts, 1st, from the corpus striatum. 2d. From the medullary part of the anterior lobe of the brain. 3d. From the fore and under part of the corpus callosum.	Passing forward, adhering to the anterior lobe, divides into numerous filaments, soft pulpy and triangular, lying over the cribriform plate, of the œthmoid bone, whence the filaments go to the nose in two sets:	One of which passing through near to the septum, lies between the periosteum and membrane: the other passes through the cribriform plate, on its lateral and outer part and is spent on the membrane of the nostrils. They communicate together and with branches of the opthalmic, pterygoid, palatine and suborbital nerves.	To communicate to the brain, the impressions made by odorous bodies; whence the sensation of smell.	In the *Mammalia* the same origin, distribution, communication and use, allowing for difference of size and variation of structure. *In birds* passes in a distinct canal to the cavity of the nose. *In reptiles*, much the same as in birds. *In fishes*, as the skate and shark, so large at their origin as to resemble the anterior lobes of the brain; forming a large bulb at their roots from which the nerve passes towards the nares. In some fishes slender at first, afterwards forming a large ganglion which is separated by a cribriform membrane from the nostril through which it passes to the nose. In osseous fishes, long, slender; surrounded by a cartilage or membrane. The Genera *Gadus* and Cyprinus have a peculiar ganglion at the nasal extremity, partly cineritious.	Olfactory nerves. Carunculæ mamillares. 8th pair. *Spigel.*
SECOND PAIR.	From the posterior part of the optic thalami; and from the tubercula quadrigemina or nates.	Whence they may be traced adhering to the tuber cinereus; then circling around the crura cerebri, a division stretches as far back as the testes; a connexion also exists between the posterior tubercle of the thalamus opticus and nates.	Gradually approaching as they advance towards the sella turcica, they unite just before the infundibulum; afterward separate into two branches, which enter the orbits by the foramina optica, and are expanded to form the *retina* within the globe of the eye, passing through the lamen cribrosum.	To communicate the impressions made by light; whence the sensation of seeing.	In *Mammalia* generally as in man; in the hare and rabbit perforates the sclerotis and choroides undivided, forming a sort of cup from whose edges the retina rises, having transverse medullary fibres in it. In *birds* it is difficult to distinguish any union; each nerve passes through a sheath of the sclerotic coat, then forms a round white line, whence grows the retina. In *reptiles*, the optic nerve forms a tubercle which sends off the retina. In *fishes*, especially of the osseous kind, the nerves cross each other without uniting; that from the right side of the brain going to the left eye, and that from the left to the right eye. I have observed the same fact in the snapping turtle. In some fishes these nerves are fibrous, in others laminated.	Primum par; ant: Nervus visivus seu visorius.
THIRD PAIR.	From the internal margin of the crura cerebri, and the perforated medullary matter betwixt the crura.	Diverging from each other as they pass forward, they go under the anterior point of the tentorium, by the side of the cavernous sinus passing through the foramen lacerum anterius. In the skull they lie between the posterior artery of the cerebrum and anterior of the cerebellum.	Separate into two branches in the socket; the inferior branch passes forward along the outside of the optic nerve; then this branch terminates in three which go to the adductor, rectus inferior, external oblique and lenticular ganglion. The superior branch of the 3d pair is distributed to the rectus superior and levator palpebræ superioris.	To communicate to the muscles of the eye nervous power, and subject them to the influence of the will.	In *Mammalia* the third pair goes through a hole appropriated to it, where there is no sphenoid fissure, either singly or in company with some of the other nerves of the eye, and is distributed as in man. In *birds* as in mammalia. In *reptiles* corresponding generally to those of birds and mammalia. In *fishes* nearly as in the others.	
FOURTH PAIR.	Sometimes by two filaments, more commonly by one undivided root, which emerges from betwixt the medullary lamina of the cerebellum, or valvula Vieussenii and the lower part of the tubercula quadrigemina.	Passes by the side of the pons varolii after a long course, pierces the dura mater behind the clynoid process, runs some distance in a canal or sheath formed by the D. M. passes above the cavernous sinus; onward through the foramen lacerum to the orbit.	Is finally distributed on the superior oblique muscle of the eye. Sometimes they communicate with branches of the fifth pair, going to the nose.	To supply the muscle which rolls the eye outward.	In *Mammalia*, as in man. In *Birds*, the same. In *Reptiles*, similar. In *Fishes*, nearly the same.	Nervus qui prope nates oritur *Eustach:* minor propago 3tii paris; i. e. 5ti recentiorum, *Vesalii*. 9um par *Columb: et Cortes.*
FIFTH PAIR.	From the fore and lower part of the crura cerebelli, where they unite with the pons varolii in two portions; the anterior small and somewhat elevated above the other; the posterior rises somewhat lower than the other; they are connected by cellular membrane.	Passes forward and downward, enters the lamina of the D. M. opposite to the pars petrosa; is here finally attached to the D. M. forming a flat irregular plexus called the Gasserian ganglion, whence it sends out three great branches.	The first goes to the socket of the eyes and forehead; the second to the upper jaw and face, through the foramen rotundum; and the third goes to the lower jaw and tongue through the foramen ovale. Its branches communicate with all the nerves of the head.	Besides supplying various muscles, serves the same purpose to the nerves of the head that the sympathetic nerve does to the rest of the body. The nerves of GUSTATION are branches of this pair.	In *Mammalia*, as in the human species, divided into three branches, larger or smaller, according to the difference of form. In carnivorous animals, as the *tiger*, the 2d and 3d portions are remarkably large. In *birds* similarly divided, the branches to the beak correspond to those about the jaws in mammalia; the branches to the inside of the nose very large in such as seek food in water, mud, &c. In *reptiles* as in mammalia. In *fishes*, the 5th pair rises from tubercles behind the cerebellum, which are very large in the ray; divides into three branches, and they are distributed in a mode analagous to the other genera. In the skate the third branch suddenly disappears on the mucous ducts which issue as from a centre at the outer and back part of the eye.	Trijumeaux *Winslow.* 3tium par *Fallopii et Vesalii.* Nervus anonymus trigeminus.
SIXTH PAIR.	Apparently from between the pons varolii and medulla oblongata; variously described by authors. It may be said to arise from the corpora pyramidalia; sometimes by two branches, which do not unite until they are entering the cavernous sinus.	Passes forward and upward, sometimes above and sometimes below the basilar artery; penetrates the dura mater by the side of the basilar sinus: thence by the side of the carotid artery, descends with it until they are joined by a branch of the vidian nerve, these together form the origin of the great sympathetic, or the sympathetic is received by them at this point.	The sixth pair enter the orbit by the foramen lacerum, along with the third, fourth and first branch of the fifth. Pierces the abductor muscle of the eye, before it is finally distributed to its substance.	To communicate to the abductor muscle nervous power, and subject it to the influence of the will.	In *Mammalia*, as in man. In *Birds*, the same. In *Reptiles*, the same. In *Fishes*, the same.	Par oculis prospiciens: 8vum par; *Bauhini.* oculo-musculaires, ou moteurs externes de *Winslow.* Radix gracilior paris 5ti, i. e. 7i recentiorum, *Vesalius.* 4tum par *Fallopii.*
SEVENTH PAIR.	Arises from the posterior and lateral part of the pons varolii; by two fasciculi, arising together and passing into the foramen auditorium internum. The anterior or lesser fasciculus is a common nerve, and goes to the face, called from its density, portio dura. The posterior fasciculus is the auditory nerve, or portio mollis.	The portio dura in passing from the brain to the internal auditory foramen is lodged in the fore part of the auditory nerve as in a groove.	The portio dura emerges from the stylo mastoid foramen; coming out between the lower jaw and ear, covered by the parotid gland. While passing through the temporal bone receives a retrograde branch of the Vidian nerve. It sends several branches to the muscles of the ear; and a remarkable branch which crossing the tympanum is named chorda tympani. This branch joins the gustatory branch of the maxillary of the 5th pair. The portio mollis is expended on the internal ear.	The portio dura supplies the face and upper part of the neck. The portio mollis is the proper nerve of hearing.	In *Mammalia*, as in man; the *portio dura* differs according to the form and extent of the different parts of the face on which it is dispersed. The *portio mollis*, as in man. In *Birds*, the *portio dura* is proportionally small. The *portio mollis* is of great size, and goes to the labyrinth in many branches. In *Reptiles*, similar. In *Fishes*, the *portio dura* is large in the *Cartilaginous*, and comes off from the brain quite distinct from the auditory. The *portio mollis* lies so near the fifth pair as to appear to be a branch of that pair. In the cartilaginous, as the *skate*, it passes into the ear by a single foramen; in the osseous, as the Cod, where the ear is in the same cavity as the brain; the nerve is directly dispersed on that organ.	Le petit sympathique *Winslow.* Nervus communicans faciei. Portio dura. Distinctus a molli nervus. *Fallop.*
EIGHTH PAIR.	Composed in relation to the brain of three portions { 1 The glosso-pharyngeal, 2 Par Vagum, and 3 Spinal accessory nerves. Taken altogether they arise from the superior and lateral part of the medulla oblongata.	1st. Is only distinguished within the skull as a large filament of the 8th pair, perforates the dura mater separately from these. 2d. Is composed of 10 or 12 very small filaments which are sometimes united into three or four fasciculi, sometimes they arise in a double series like the nerves of the spine. 3d. Comes up from the spine to join the par vagum, it begins by small twigs from the posterior roots of the 4th, 5th, 6th and even 7th cervical nerves. The nerve passes through the anterior condyloid foramen, adhering to the 8th pair, receiving branches from the first cervical nerve.—It communicates with the eighth pair, spinal accessory, sympathetic, cervical phrenic, and with the branches of the 5th pair.	1st. Is distributed on the upper part of the throat and tongue, terminating with the branches of the 5th, 8th and 9th pairs. 2d. Is the great and important division of the 8th pair, it sends branches to all the upper parts of the throat, then continues its course towards the chest betwixt the carotid artery and jugular vein in the same sheath sends nerves to the lungs, to the stomach and diaphragm, communicates with the other nerve at the top of the throat, and with the great sympathetic. It gives off a branch under the occipital branch of the carotid artery, called DESCENDENS NONI, which goes to the muscles of the front of the neck. The great trunk of the nerve goes to the muscles of the tongue, lower jaw, and sub-maxillary glands. It terminates by numerous filaments in the tongue.	Its great office is to supply the stomach and lungs.	In *Mammalia*, nearly as in man. In *Birds*, the same. In *Reptiles*, similar. In *Fishes*, the eighth pair is remarkable on account of its great size and distribution. It is divided into three portions, one going directly to the branchiæ; the second to the muscles of the tongue and œsophagus, and the third extends under the skin as far as the tail.	Le moyen sympathique, *Winslow.* Nervus sextus, Galeni etc.
NINTH PAIR.	By several filaments from between the corpora olivaria and pyramidalia; the filaments pierce the dura mater separately; then uniting			To supply the muscles of the tongue, and communicate the influence of the will. Some have thought it the nerve of gustation.	In *Mammalia*, nearly as in man. In *Birds*, the same. In *Reptiles*, similar. In *Fishes*, appears to be wanting.	Par linguale medium vel nervus lingualis medius. *Haller, Sœmmering.* The hypoglossal, *sublingual* or gustatory. 7um par Vesalii etc.

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